

INFORMATION DISCLOSURE STATEMENT

Applicant : Weinberger et al.
App. No. : 10/789,169
Filed : February 27, 2004
For : EFFECT OF BDNF GENOTYPE ON
HIPPOCAMPAL FUNCTION AND
VERBAL MEMORY AND RISK FOR
SCHIZOPHRENIA
Examiner : Unknown
Group Art Unit : 1646

Mail Stop: Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Enclosed is form PTO-1449 listing 43 references that are also enclosed.

This Information Disclosure Statement is being filed before the receipt of a first Office Action on the merits, and presumably no fee is required in accordance with 37 C.F.R. § 1.97(b)(3). If a first Office Action on the merits was mailed before the mailing date of this Statement, the Commissioner is authorized to charge the fee set forth in 37 C.F.R. § 1.17(p) to Deposit Account No. 11-1410.

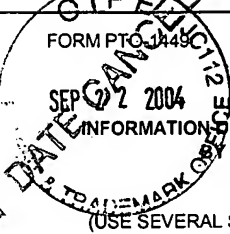
Respectfully submitted,
KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: _____

09/21/04

By: _____

Nancy W. Vensko
Registration No. 36,298
Attorney of Record
Customer No. 45,311
(805) 547-5580

 FORM PTO-J445C U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (USE SEVERAL SHEETS IF NECESSARY)	ATTY. DOCKET NO. NIH222.001C1	APPLICATION NO. 10/789,169
	APPLICANT Weinberger et al.	
	FILING DATE February 27, 2004	GROUP 1646

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	1	WO 01/11085	02/15/2001	PCT			

EXAMINER
INITIAL

OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

	2	Bliss, T.V. P. et al. 1993 "A synaptic model of memory: long-term potentiation in the hippocampus," <i>Nature</i> 361:31-39.
	3	Callicott, J.H. et al. 1998 "Hippocampal N-acetyl aspartate in unaffected siblings of patients with schizophrenia: a possible intermediate neurobiological phenotype," <i>Biol. Psychiatry</i> 44:941-950.
	4	Callicott, J.H., et al. 1999 "Physiological characteristics of capacity constraints in working memory as revealed by functional MRI," <i>Cereb. Cortex</i> 9:20-26.
	5	Callicott, J.H. et al. 2000 "Physiological dysfunction of the dorsolateral prefrontal cortex in schizophrenia revisited," <i>Cereb. Cortex</i> 10:1078-1092.
	6	Egan, M. et al. 2000 "Relative risk of attention deficits in siblings of patients with schizophrenia," <i>Am. J. Psychiatry</i> 157:1309-1316.
	7	Egan, M.F. et al. 2001 "Effect of BDNF MET66VAL genotype on verbal memory and risk for schizophrenia," <i>Soc. Of Neurosci. Meeting Abstracts</i> .
	8	Egan, M.F. et al. 2001a "Relative risk for cognitive impairments in siblings of patients with schizophrenia," <i>Biol. Psychiatry</i> 50:98-107.
	9	Egan, M.F. et al. 2001b "Effect of COMT Val ^{108/158} Met genotype on frontal lobe function and risk for schizophrenia," <i>PNAS USA</i> 98:6917-6922.
	10	Egan, M.F. et al. 2003 "The BDNF val66met polymorphism affects activity-dependent secretion of BDNF and human memory and hippocampal function," <i>Cell. Vol.</i> 112:257-269.
	11	Farhadi, H.F. et al. 2000 "Neurotrophin-3 sorts to the constitutive secretory pathway of hippocampal neurons and is diverted to the regulated secretory pathway by coexpression with brain-derived neurotrophic factor," <i>J. Neurosci.</i> 20:4059-4068.
	12	Figurov, A. et al. 1996 "Regulation of synaptic responses to high-frequency stimulation and LTP by neurotrophins in the hippocampus," <i>Nature</i> 381:706-709.
	13	Goodman, L.J. et al. 1996 "Regulated release and polarized localization of brain-derived neurotrophic factor in hippocampal neurons," <i>Mol. Cell. Neurosci.</i> 7:223-228.
	14	Gottschalk, W. et al. 1998 "Presynaptic modulation of synaptic transmission and plasticity by brain-derived neurotrophic factor in the developing hippocampus" <i>J. Neurosci.</i> 18:6830-6839.
	15	Gottschalk, W.A. et al. 1999 "Signaling mechanisms mediating BDNF modulation of synaptic plasticity in the hippocampus," <i>Learn. Mem.</i> 6:243-256.

EXAMINER

DATE CONSIDERED

*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (USE SEVERAL SHEETS IF NECESSARY)	ATTY. DOCKET NO. NIH222.001C1	APPLICATION NO. 10/789,169
	APPLICANT Weinberger et al.	
	FILING DATE February 27, 2004	GROUP 1646

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
	16 Guillin, O. et al. 2001 "BDNF controls dopamine D ₃ receptor expression and triggers behavioral sensitization," <i>Nature</i> 411:86-89.
	17 Hall, J. 2000 "Rapid and selective induction of BDNF expression in the hippocampus during contextual learning," <i>Nat. Neurosci.</i> 3:533-535.
	18 Hartmann, M. et al. 2001 "Synaptic secretion of BDNF after high-frequency stimulation of glutamatergic synapses," <i>EMBO J.</i> 20:5887-5897.
	19 Jenkins, B.G. et al. 2000 "Nonlinear decrease over time in N-acetyl aspartate levels in the absence of neuronal loss and increases in glutamine and glucose in transgenic Huntington's disease mice," <i>J. Neurochem.</i> 74:2108-2119.
	20 Jovanovic, J.N. et al. 2000 "Synapsins as mediators of BDNF-enhanced neurotransmitter release," <i>Nat. Neurosci.</i> 3:323-329.
	21 Kandel, E.R. 2001 "The molecular biology of memory storage: a dialogue between genes and synapses," <i>Science</i> 294:1030-1038.
	22 Kojima, M. et al. 2001 "Biological characterization and optical imaging of brain-derived neurotrophic factor-green fluorescent protein suggest an activity-dependent local release of brain-derived neurotrophic factor in neurites of cultured hippocampal neurons," <i>J. Neurosci. Res.</i> 64:1-10.
	23 Kopelman, M.D. et al. 1998 "PET activation of the medial temporal lobe in learning," <i>Brain</i> 121:875-887.
	24 Korte, M. et al. 1995 "Hippocampal long-term potentiation is impaired in mice lacking brain-derived neurotrophic factor," <i>PNAS USA</i> 92:8856-8860.
	25 Korte, M. et al. 1998 "A role for BDNF in the late-phase of hippocampal long-term potentiation," <i>Neuropharmacology</i> 37:553-559.
	26 Levine, E.S. et al. 1995 "Brain-derived neurotrophic factor rapidly enhances synaptic transmission in hippocampal neurons via postsynaptic tyrosine kinase receptors," <i>PNAS USA</i> 92:8074-8077.
	27 Linnarsson, S. et al. 1997 "Learning deficit in BDNF mutant mice," <i>Eur. J. Neurosci.</i> 9:2581-2587.
	28 Lu, B. et al. 2000 "Modulation of hippocampal synaptic transmission and plasticity by neurotrophins," <i>Prog. Brain Res.</i> 128:231-241.
	29 Maier, M. et al. 1995 "Proton magnetic resonance spectroscopy: an in vivo method of estimating hippocampal neuronal depletion in schizophrenia," <i>Psychol. Med.</i> 25:1201-1209.
	30 Meyer-Lindenberg, A. et al. 2001 "Evidence for abnormal cortical functional connectivity during working memory in schizophrenia," <i>Am. J. Psychiatry</i> 158:1809-1817.
	31 Milner, B. et al. 1998 "Cognitive neuroscience and the study of memory," <i>Neuron</i> 20:445-468.
	32 Minichiello, L. et al. 1999 "Essential role for TrkB receptors in hippocampus-mediated learning," <i>Neuron</i> 24:401-414.
	33 Mizuno, M. et al. 2000 "Involvement of brain-derived neurotrophic factor in spatial memory formation and maintenance in a radial arm maze test in rats," <i>J. Neurosci.</i> 20:7116-7121.
	34 Mowla, S.J. et al. 2001 "Biosynthesis and post-translational processing of the precursor to brain-derived neurotrophic factor," <i>J. Biol. Chem.</i> 276:12660-12666.
	35 Nakatani, A. et al. 1998 "Comparison of survival-promoting effects of brain-derived neurotrophic factor and neurotrophin-3 on PC12h cells stably expressing TrkB receptor," <i>J. Biochem. (Tokyo)</i> 123:707-714.
	36 Ogawa, S. et al. 1992 "Intrinsic signal changes accompanying sensory stimulation: functional brain mapping with magnetic resonance imaging," <i>PNAS USA</i> 89:5951-5955.

EXAMINER	DATE CONSIDERED
*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.	

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (USE SEVERAL SHEETS IF NECESSARY)	ATTY. DOCKET NO. NIH222.001C1	APPLICATION NO. 10/789,169
	APPLICANT Weinberger et al.	
	FILING DATE February 27, 2004	GROUP 1646

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
	37 Patterson, S.L. et al. 1992 "Neurotrophin expression in rat hippocampal slices: a stimulus paradigm inducing LTP in CA1 evokes increases in BDNF and NT-3 mRNAs", <i>Neuron</i> 9 :1081-1088.
	38 Patterson, S.L. et al. 1996 "Recombinant BDNF rescues deficits in basal synaptic transmission and hippocampal LTP in BDNF knockout mice," <i>Neuron</i> 16 :1137-1145.
	39 Poo, M.M. 2001 "Neurotrophins as synaptic modulators," <i>Nat. Rev. Neurosci.</i> 2 :24-32.
	40 Pozzo-Miller, L. et al. 1999 "Impairments in high frequency transmission, synaptic vesicle docking and synaptic protein distribution in the hippocampus of BDNF knockout mice," <i>J. Neurosci.</i> 19 :4972-4983.
	41 Seidah, N.G. et al. 1996 "Cellular processing of the neurotrophin precursors of NT3 and BDNF by the mammalian proprotein convertases," <i>FEBS Lett.</i> 379 :247-250.
	42 Tartaglia, N. et al. 2001 "Protein synthesis dependent and independent regulation of hippocampal synapses by brain-derived neurotrophic factor," <i>J. Biol. Chem.</i> 276 :37585-37593.
	43 Xu, B. et al. 2000 "The role of brain-derived neurotrophic factor receptors in the mature hippocampus: modulation of long-term potentiation through a presynaptic mechanism involving TrkB," <i>J. Neurosci.</i> 20 :6888-6897.

O:\DOCS\MXG\MXG-5608.DOC:vr
072204

EXAMINER	DATE CONSIDERED
*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.	